

OIB - P-3 Orion 03/28/17 Science Report

Aircraft:

[P-3 Orion](#) ([See full schedule](#))

Date:

Tuesday, March 28, 2017

Mission:

OIB

Mission Location:

Greenland

Mission Summary:

This mission was primarily designed to fill a gap in altimetry and radar coverage of the north-central portion of the ice sheet. The flight was modified from previous versions in 2015 by removing the centerlines of Zachariae and Storstrommen Glaciers (covered in other flights) and adding re-flights of four 2010 grid lines on the upper Zachariae/79N catchment, extending upstream centerlines of both glaciers, and flowlines passing through the TUNU and B19 core sites. Core site TUNU was flown over at 16:05:40Z, and core B19 at 16:25:15Z.

This mission was chosen since it was the highest priority flight with clear weather, as largely only the north-central part of Greenland was clear today. Overall it was a good flight with no loss of data.

Data volumes

ATM: T5: 29 Gb T6: 131 Gb

FLIR: 14 Gb

Cambot: 39 Gb

KT19: 10 Mb

DMS: 115 Gb

Snow/Ku radar: 1.2 Tb

MCoRDS: 1.6 Tb

Accumulation radar: 1.2 Tb

Gravity: 3 Gb

data on: 1102

data off: 1821

Submitted by:

Nathan T. Kurtz on 03/28/17

File:

 [ncentralgap.pdf](#)

Related Flight Report:

P-3 Orion 03/28/17

Flight Number:

Science Flight #11 - North Central Cap 01 Line

Payload Configuration:

OIB Arctic

Nav Data Collected:

No

Total Flight Time:

7.6 hours

Submitted by:

Janet Letchworth on 03/28/17

Flight Segments:

From:	BGTL	To:	BGTL
Start:	03/28/17 10:55 Z	Finish:	03/28/17 18:31 Z
Flight Time:	7.6 hours		
Log Number:	17P006	PI:	Nathan Kurtz
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		

Purpose of Flight:	Science
Comments:	Flight included coverage of the North Central Cap 01 line.

Flight Hour Summary:

	17P006
Flight Hours Approved in SOFRS	333.6
Total Used	307.1
Total Remaining	26.5

17P006 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
02/24/17	Airworthiness Test Flight	Check	1	1	332.6
02/26/17	Project Test Flight #1	Check	4.9	5.9	327.7
02/27/17	Project Test Flight #2	Check	3	8.9	324.7
03/07/17	Transit Flight	Transit	8.2	17.1	316.5
03/09/17	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5
03/10/17	Science Flight #2 - Laxon Line	Science	8.5	33.6	300
03/11/17 - 03/12/17	Science Flight #3 - Chukchi West Line	Science	8	41.6	292
03/12/17 - 03/13/17	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9
03/14/17 - 03/15/17	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9
03/20/17	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8
03/22/17	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9
03/23/17	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252
03/24/17	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2
03/27/17	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8
03/28/17	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2
03/29/17	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6
03/30/17	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7
03/31/17	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2
04/03/17	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
04/05/17	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
04/06/17	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
04/07/17	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
04/10/17	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
04/11/17	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4
04/12/17	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2

04/13/17	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
04/14/17	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
04/17/17	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
04/19/17	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
04/20/17	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4
04/21/17	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
04/22/17	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
04/24/17	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
04/26/17	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
04/28/17	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
04/29/17	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
05/01/17	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
05/02/17	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
05/03/17	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
05/05/17	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
05/06/17	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5
05/08/17	Science Flight #37-Southeast Glaciers 01 (High Priority)	Science	8	307.1	26.5

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Source URL: https://airbornescience.nasa.gov/science_reports/OIB_-_P-3_Orion_03_28_17_Science_Report?destination=node/48697